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## PSE18...370



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## Safety information



**Warning!** A qualified electrician must carry out installation, commissioning and service on the product by following installation standards and regulations. The product user hazardous voltage that can cause death or serious injury. Always disconnect power before working on equipment. Do not touch terminals when voltage is applied, output terminals can have live voltage even when the device is in off position. The product should only be used within the specified ratings. Check that you have the correct product in regards to mains voltage, supply voltage and rated product data.



**Varning!** Installation, idrifttagning och service av denna produkt skall endast utföras av behörig el-personal. Säkerhets- och installationsnormer skall följas. Produkten använder livsfarlig spänning, innan arbete utförs ska alltid spänningen frånskiljas. Rör inga anslutningar när produkten är spänningssatt, anslutningarna är spänningssatta även när produkten är i frånläge. Produkten skall endast användas inom dess specifierade data, kontrollera den gentemot huvudspänning, kontrolspänning och övriga märkdata.



**Warnung!** Installation, Inbetriebnahme und Service dieses Produktes darf nur durch qualifiziertes Fachpersonal unter Beachtung der nachfolgenden Hinweise und Erklärungen erfolgen. Die in dem Gerät vorhandenen Spannungen können bei Berührung zu tödlichen oder ernsthaften Verletzungen führen. Vor Arbeiten an dem Gerät ist grundsätzlich die Versorgung abzuschalten. Bei Anliegen der Versorgungsspannung dürfen keine Klemmen berührt werden, an den Ausgangsklemmen kann auch bei ausgeschaltetem Gerät eine gefährliche Spannung anliegen. Der Einsatz des Gerätes darf nur innerhalb der spezifizierten Bedingungen erfolgen. Überprüfen Sie vor Einsatz, dass die Gerätyepe bezüglich Versorgungsspannung, Schaltspannung und sonstiger Daten den Anforderungen entspricht.



**Avvertenza!** L'installazione, la messa in servizio e la manutenzione di questo prodotto devono essere effettuate solo da un elettricista qualificato, seguendo fedelmente le disposizioni in materia di installazione e sicurezza. Il prodotto utilizza tensioni pericolose che possono causare gravi danni o morte. Collegare sempre l'alimentazione prima di accedere all'apparecchio. Non toccare mai i terminali quando l'apparecchio è sotto tensione: i terminali di uscita sono in tensione anche quando l'apparecchio è SPENTO. Prima dell'installazione; verificare di aver scelto il prodotto corretto specialmente in termini di tensione di alimentazione, principale ed ausiliaria, ma più in generale per tutte le caratteristiche tecniche. Il prodotto va utilizzato solo nelle condizioni specificate.



**警告!** 产品的安装、调试及运行必须由具备资质的专业电工遵照相关标准及安全规范完成。产品使用能致命或引起严重伤害的危险电压。在产品上进行操作时务必断开电源。通电时不可接触接线端子，产品关断后输出端子仍有电压。产品仅能按照规定额定值使用。检查主回路电压，控制回路电压及其它产品参数符合产品规定。



**Avertissement!** Un électricien qualifié doit exécuter l'installation, la mise en service et l'entretien de ce produit en suivant les normes d'installation et les règles de sécurité. Le produit utilise une tension dangereuse qui peut causer la mort ou des blessures graves. Toujours débrancher l'alimentation avant de travailler sur l'équipement. Ne touchez pas les prises de raccordements lorsqu'une tension est appliquée, les prises de raccordements de sortie auront toujours une tension résiduelle, même si l'appareil est sur OFF. Le produit doit être seulement utilisé dans les calibres spécifiées. Vérifiez que vous avez le bon produit en ce qui concerne la tension du secteur, la tension d'alimentation nominale et les données produits.



**Осторожно!** Установка, ввод в эксплуатацию и обслуживание данного оборудования должны производиться квалифицированным персоналом, специально допущенным к таким работам, в соответствии с действующим законодательством и требованиями предъявляемыми к обслуживанию электроустановок и обеспечению безопасности. В изделии используется опасное для человека напряжение, которое может привести к смерти или серьезным травмам. Всегда отключайте напряжение перед началом любых работ на оборудовании. Не дотрагивайтесь до клемм и токоведущих частей когда приложено напряжение. На выходных клеммах может быть напряжение даже если прибор выключен. Прибор должен использоваться строго в соответствии с заявленными параметрами. Проверьте, что прибор подобран правильно и номинальные параметры находятся в соответствии с силовым напряжением и напряжением управления.



**تحذير!** يسمح فقط لل الفني أو المهندس الكهربائي المختص ل القيام بأعمال التأريب و التجهيز و الصيانة لهذا النوع من الأجهزة وذلك من خلال اتباع انظمة التوصيل والترأيب الكهربائية العالمية وشروط السلامة المعتمدة . هذا النوع من الأجهزة يستخدم جهد خطر قد يؤدي لحدوث الاصابة أو الوفاة . دائمًا افصل مصدر التيار قبل بدء العمل على الجهاز . لاتلمس أطراف التوصيل عندما يكون هناك جهد مطبق للأن مخارج أطراف التوصيل تحتفظ بـ لاجهد حتى بعد فصل مصدر الجهد . هذا الجهاز يجب استخدامه مع ما يناسبه من قيم محددة . تأكد دائمًا من حصولك على الجهاز المناسب لمصدر الفولتية والتتردد والقيم المحددة للتيار .

## **1. ESD Warning**

Please note!

**The life span of electronics can be affected by damage caused by electrostatic discharge.** This can happen if a charged tool or person touches a component. Therefore it is very important that all tools and personnel are discharged by touching an earthed point before the printed circuit board or any of the components are touched. It is equally important to discharge the package with the new component before opening it.

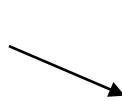
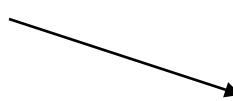
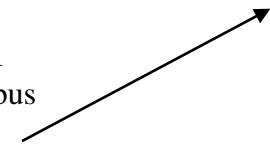
A person walking on a carpet can be charged with up to fifteen thousand volt (15000V). Compare this with the fact that some sensitive components can be destroyed when discharged on a much lower level (about 100V). We kindly ask you to pay notice to this, as this is a vital point in order to ensure the life span of the product.

## **2. Tools**

Small screwdriver for removing the cover.

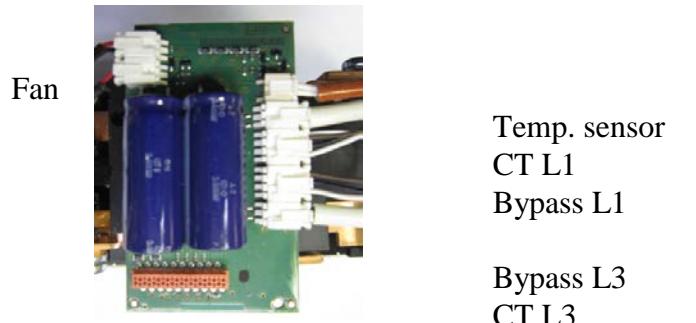
### 3. Step by step

1. Before disconnecting the cables - mark them.
2. All screws with built-in conical spring washers and single conical spring washers which are removed shall be exchanged to new unused ones.
3. Disconnect all cables from the terminals 1 through 14, external keypad and the fieldbus plug accessory.
4. Disconnect the cables from 1L1, 3L2, 5L3, 2T1, 4T2, 6T3. For PSE18...105 remove the connection unit.
5. Detach the HMI module with a small screwdriver.
6. Discharge the tools and yourself by touching earth (if you are not earthed).
7. Disconnect the gate cables from the main-board.
8. Disconnect the ribbon cable from the sub-board.
9. For PSE210...370 disconnect the other cables between the main-board and the sub-board.
10. Remove the HMI module.
11. Disconnect all the cables from the sub-board.
12. Remove the sub-board from the middle part.
13. Unpack the new HMI-module and the sub board.
14. Mount the new sub board into the middle part.



15. Mount the cables on the sub-board according to the fig. below. It is very important that each cable is correctly mounted to the correct terminal.

PSE18...105



PSE142...170

From thyristor L1

From thyristor L3

Fan



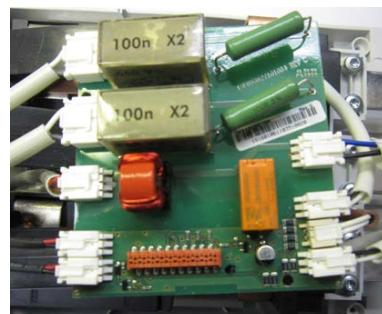
PSE210...370

From thyristor L1

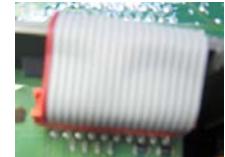
From thyristor L3

To bypass contactor

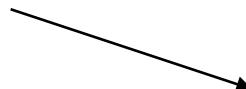
Fan



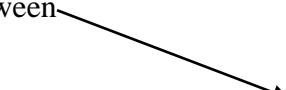
16. Connect the ribbon cable on the sub-board.



17. Connect the gate cables on the main-board.



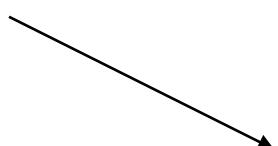
18. For PSE210...370 connect the cable between the main board and the sub board.



19. Mount the HMI module.



20. For PSE18...105 mount the connection unit.



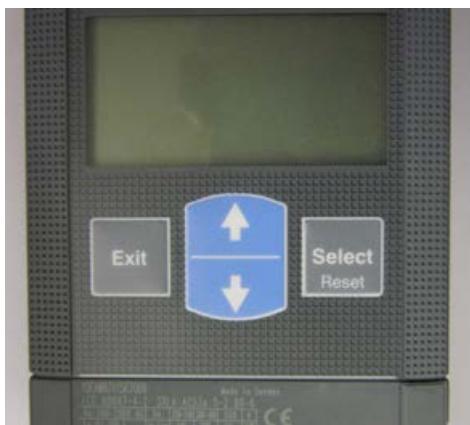
21. Connect the cables to 1L1, 3L2, 5L3 (main voltage) and 2T1, 4T2, 6T3 (motor connection).



22. Connect all the cables to the terminals 1 through 14, external keypad and the fieldbus plug accessory.



## 4. Configuration of the HMI module



The HMI module is programmed for PSE18, follow the step below to change to the correct size of the Softstarter:

1. Switch on the power supply (terminal 1 and 2).
2. Press and hold the “Exit”, “Select”, “arrow up” buttons for 3 sec.
3. The display now shows Id.
4. Push “Select”. 18 is now flashing in the display.
5. Push “arrow up” one or several times to select the correct size of PSE.
6. Push “Select” to store.
7. Change the other parameters as needed.
8. Put on the marking label for the selected Softstarter.

**Ready for start!!**



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